

CLAIMS

1. A method for producing an isolated-soy protein comprising the following steps: an acid-washing step of washing defatted soybeans with an aqueous medium in a region of pH 3.0 to 5.0 to extract and remove whey components; an extraction step of extracting protein from acid-washed soybean slurry obtained in the acid-washing step with an aqueous medium in a neutral to alkaline region and then removing extraction residue; and an isolation step of separating the extract solution obtained in the extraction step into water and protein while holding it in the neutral to alkaline region.
2. The method for producing an isolated-soy protein according to claim 1, wherein no acid-precipitation step is carried out.
3. The method for producing an isolated-soy protein according to claim 1 or 2, wherein the extraction is carried out by a counter-current extraction method in the extraction step.
4. The method for producing an isolated-soy protein according to claim 3, wherein the counter-current extraction method is a three-stage counter-current extraction method.
5. The method for producing an isolated-soy protein according to claim 3 or 4, wherein the counter-current extraction method is a pH gradient counter-current extraction method.
6. The method for producing an isolated-soy protein according to any of claims 1 to 5, wherein the protein is extracted with

an aqueous medium in an amount equal to or less than seven times the amount of soybean raw material in terms of raw material defatted soybeans, in the extraction step.

7. The method for producing an isolated-soy protein according to any of claims 1 to 6, wherein the extraction is carried out at an extraction temperature of 10 to 70°C, in the extraction step.

8. The method for producing an isolated-soy protein according to any of claims 1 to 7, wherein the extraction is carried out so that the soy protein content in the extract solution is 10% by weight or more, in the extraction step.

9. The method for producing an isolated-soy protein according to any of claims 1 to 8, wherein the neutral to alkaline region is a region of pH 6.5 to 8.5.

10. The method for producing an isolated-soy protein according to any of claims 1 to 9, wherein the defatted soybeans are washed by a multistage washing method of two or three stages, in the acid-washing step.

11. The method for producing an isolated-soy protein according to any of claims 1 to 10, wherein the defatted soybeans are washed so that the crude protein content in the acid-washed soybean slurry solid material is 65% by weight or more, preferably 70% by weight or more, in the acid-washing step.

12. The method for producing an isolated-soy protein according to any of claims 1 to 11, wherein the defatted soybeans are washed with an aqueous medium containing an emulsifier, in the acid-washing step.

13. The method for producing an isolated-soy protein according to any of claims 1 to 12, wherein the protein solution extracted by the counter-current extraction method is sterilized and then separated into water and protein, in the isolation step.

14. An isolated-soy protein obtained by the production method according to any of claims 1 to 13.

15. The isolated-soy protein according to claim 14, wherein the jelly strength of the gel prepared by adding a 2% saline solution in an amount equal to five times the amount of isolated-soy protein is 150 g/cm or more.

16. A food or food material containing the isolated-soy protein obtained by the producing method according to any of claims 1 to 13.